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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,588	12/22/2000	Ali Akgun	00-645	2668
7590	09/08/2004			
George I. Lee McDonnell Boehnen Hulbert & Berghoff 32nd Floor 300 S. Wacker Drive Chicago, IL 60606			EXAMINER HOM, SHICK C	
			ART UNIT 2666	PAPER NUMBER

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/748,588

Applicant(s)

AKGUN ET AL.

Examiner

Shick C Horn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/22/00 & 5/11/01.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Drawings*

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the character of lines, numbers, and letters do not meet the requirements of 37 CFR 1.84(i), i.e. lines, numbers and letters not uniformly thick and well defined, clean, durable, and black (poor line quality) in Figs. 1-7. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

2. Figures 1-3 should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

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applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. The disclosure is objected to because of the following informalities: in page 14 at end of line 9 delete typo "the a" and insert ---a---. Appropriate correction is required.

### ***Claim Objections***

5. Claims 3-5 are objected to because of the following informalities: In claim 3 line 3, the words "a PPPoE connection" seem to refer back to "PPPoE connection" recited in claim 3 line 6. If this is true, it is suggested changing "a PPPoE connection" to ---the PPPoE connection---. Claims 4-5 are objected to because they depend from claim 3. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. Claims 6-10 and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6 line 23 and claim 14 line 17 which recite the step of "transmitting the Ethernet frame" and "transmitting the Ethernet frame to the second terminal," respectively, are not clear as to whether they're reciting ---said step of transmitting the Ethernet frame--- and ----said step of transmitting the Ethernet frame to the second terminal--- as in claim 6 line 18 and claim 14 line 12, respectively, or a second transmission. In claim 15 line 2 which recite "the physical address" lack clear antecedent basis because no physical address have been previously recited in the claims and therefore the limitation is not clearly understood. Claims 7-10 and 16 are rejected under 35 U.S.C. 112, second paragraph because it depends from rejected claims 6 and 14, respectively.

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***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-2 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Blahut et al. (6,065,061).

Regarding claim 1:

Blahut et al. disclose the routing cable modern termination system comprising: a processor; memory; computer instructions stored in the memory and executable by the processor to perform functions (see col. 7 lines 36-49 which recite the use of programmed processors, e.g. a digital signal processor clearly anticipate the processor, memory, and computer instruction) including: (a) receiving an Ethernet frame from a first terminal engaged in a PPPoE connection, the Ethernet frame comprising a destination address addressing a second terminal engaged in the PPPoE connection: and (b) transmitting the Ethernet frame, the destination address of the Ethernet frame addressing the second

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terminal engaged in the PPPoE connection (see col. 6 lines 20-40 which recite receiving IP packet including a destination address, using the routing cable modem termination system CMTS, routing the IP packet; col. 7 lines 36-49 which recite the CMTS acting as a bridge; and col. 3 lines 16-35 which recite the IP communication being point-to-point over POTS and Ethernet clearly anticipate all the limitations of claim 1).

Regarding claim 11:

Blahut et al. disclose the method for bridging an Ethernet frame on a routing cable modem termination system, the Ethernet frame comprising a destination address, the method comprising: receiving the Ethernet frame from a first terminal engaged in a PPPoE connection; and transmitting the Ethernet frame to a second terminal engaged in the PPPoE connection, the destination address of the Ethernet frame addressing the second terminal (see col. 6 lines 20-40 which recite receiving IP packet including a destination address, using the routing cable modem termination system CMTS, routing the IP packet; col. 7 lines 36-49 which recite the CMTS acting as a bridge; and col. 3 lines 16-35 which recite the IP communication being point-to-point over POTS and Ethernet clearly anticipate all the limitations of claim 11).

Regarding claim 2:

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Blahut et al. disclose wherein the destination address of the Ethernet frame is a MAC sub-layer address, of the second terminal engaged in the PPPoE connection (see col. 3 lines 16-47 which recite support of MAC address for the target appliance).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35



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U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3-10 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blahut et al. (6,065,061) in view of Mamakos et al. (Network Working Group Request for Comments: 2516).

Regarding claims 3, 6, 12, and 14:

Blahut et al. disclose the routing cable modem termination system comprising: a processor; memory; computer instructions stored in the memory and executable by the processor to perform functions (see col. 7 lines 36-49 which recite the use of programmed processors, e.g. a digital signal processor clearly anticipate the processor, memory, and computer instruction to perform functions) including: (a) receiving an Ethernet frame from a first terminal engaged in a PPPoE connection, the Ethernet frame comprising: a destination address; (b) storing the Ethernet frame on a memory; and (e) transmitting the Ethernet frame to a second terminal in response to the status code matching the discovery code or the session code, the Ethernet frame addressing the second terminal, the second terminal engaged in a PPPoE connection (see col. 6 lines 20-40 which recite receiving IP packet including a destination address, using the routing cable modem termination system CMTS,

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routing the IP packet; col. 7 lines 36-49 which recite the CMTS acting as a bridge; col. 3 lines 16-35 which recite the IP communication being point-to-point over POTS and Ethernet; and further col. 6 lines 20-40 which recite the portion of the destination IP address matching the a priori identifier, matching the associated CM IP address and includes checking on the status of the associated port ID wherein if there is no match the received packets are discarded clearly anticipate the status code matching the discovery code or the session code for transmission of the Ethernet frame).

For claims 3, 6, 12, and 14, Blahut et al. disclose all the subject matter of the claimed invention with the exception of the use of the Ether\_Type field for identifying status of the PPPoE connection and locating the Ether\_Type field in the Ethernet frame for determining whether a status code in the Ether\_Type field matches a discovery code or session code as recited in claims 3, 6, 12, and 14.

Mamakos et al. from the same or similar fields of endeavor teach that it is known to provide the use of the Ether\_Type field for identifying status of the PPPoE connection and locating the Ether\_Type field in the Ethernet frame for determining whether a status code in the Ether\_Type field matches a discovery code or session code (see page 2 the

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Introduction, which recite PPPoE connecting network of hosts over bridging access device including the discovery protocol for learning Ethernet address of remote peer and establishing session identifier; page 2 the Protocol Overview, which recite the use of the discover stage and PPP session stage; and page 3 which shows the packet format including the Ether\_Type field). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the use of the Ether\_Type field for identifying status of the PPPoE connection and locating the Ether\_Type field in the Ethernet frame for determining whether a status code in the Ether\_Type field matches a discovery code or session code as taught by Mamakos et al. in the communications system and method of Blahut et al. The use of the Ether\_Type field for identifying status of the PPPoE connection and locating the Ether\_Type field in the Ethernet frame for determining whether a status code in the Ether\_Type field matches a discovery code or session code can be implemented by using these fields as taught by Mamakos et al. in the system and method of Blahut et al. The motivation for using use of the Ether\_Type field for identifying status of the PPPoE connection and locating the Ether\_Type field in the Ethernet frame for determining whether a status code in the Ether\_Type field matches a discovery code or session code as

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taught by Mamakos et al. in the communication system and method of Blahut et al. being that it provides more efficiency for the system since the system uses known standard method for transmitting PPP over Ethernet.

Regarding claims 4, 9, 10, 13, 15, 16:

Blahut et al. disclose the computer instructions stored in the memory and executable by the processor to route the Ethernet frame in response to the status code not matching the discovery code or session code (see col. 6 lines 20-40 which recite the portion of the destination IP address matching the a priori identifier, matching the associated CM IP address and includes checking on the status of the associated port ID wherein if there is no match the received packets are discarded).

Regarding claims 5, 7, 8:

Blahut et al. disclose wherein the destination address of the Ethernet frame is a MAC sub-layer address (see col. 3 lines 16-47 which recite support of MAC address for the target appliance).

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Larson discloses channel interface circuit with high speed data message header field translation and direct memory access.

Acharya discloses a method to support Vlans on a phoneline network.

Miriyala discloses flexible scheduling of network devices within redundant aggregate configurations.

May discloses proxy methods for IP address assignment and universal access mechanism.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH

A handwritten signature in cursive script, appearing to be 'JMS' or similar, written in dark ink.